IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: T. Allan Hamilton

Assignee: ZiLOG, Inc.

Title: "System And Method For Providing An Improved Standby Mode For Infrared Data Transceivers"

Appl. No.: 09/135,154 Filing Date: August 17, 1998

Examiner: Zimmerman, Brian A. Art Unit: 2635

Docket No.: ZIL-254 (formerly CLB5-B73)

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DECLARATION OF ALAN G. GRACE

I, Alan G. Grace, hereby declare as follows:

1. I am employed by Zilog, Inc., the assignee of the above-identified application. My title at Zilog is Fellow. There are only three engineers with the title of Fellow at Zilog. I am the principal engineer overseeing the design of all IrDA transceiver modules designed and manufactured by Zilog.

2. I have approximately eight years of experience in the IrDA transceiver module field.

3. My experience in the IrDA field began in the 1996 time frame when I was employed by Siliconix (now Vishay). I spent three years at Siliconix, working in the design of IrDA transceiver modules.

4. In 1999, I left Siliconix. I cofounded an IrDA transceiver module company called Calibre Inc. T. Allan Hamilton, the listed inventor on the above-

identified application, is another cofounder of Calibre Inc. The above-identified application was filed while both T. Allan Hamilton and I were working at Calibre.

5. Calibre Inc, including its IrDA business, was then sold to Zilog, Inc. Zilog, Inc. is therefore the current assignee of the above-identified application. As a consequence of Zilog, Inc.'s acquisition of Calibre, I became employed by Zilog, Inc. I continue to be employed by Zilog, Inc. up until the present.

6. Zilog, Inc. makes a family of IrDA transceiver modules that includes an IrDA discovery signal detector circuit. The IrDA transceiver modules have a low-power sleep mode. The low-power sleep mode is an attribute of the IrDA discovery signal detector circuit. While in the low-power sleep mode, the IrDA transceivers cannot receive ordinary high baud rate IrDA signals. If the IrDA discovery signal detector detects a 9600 baud IrDA discovery signal while in the sleep mode, then the IrDA discovery signal detector circuit causes transceiver operation to switch from the low-power sleep mode to a full-power mode. Switching to the full-power mode enables the IrDA transceiver module to receive higher baud rate IrDA signals.

7. Zilog, Inc. also makes an older family of less expensive IrDA transceiver modules. IrDA transceiver modules of this family do not include an IrDA discovery signal detector circuit.

8. In the past several years, several potential customers have indicated a desire to buy Zilog IrDA transceiver modules that have the IrDA discovery signal detector specifically because these IrDA modules consume less power when in their sleep mode.

9. Recently, one customer inquired about purchasing Zilog IrDA transceivers that have the IrDA discovery signal detector circuit. I suggested to

the customer that an older Zilog IrDA transceiver module (one that does not have the IrDA discovery signal detector circuit) would be more appropriate for the customer's needs because that older IrDA transceiver module met the customer's performance requirements and it was less expensive than the newer Zilog IrDA transceiver having the IrDA discovery signal detector. The customer responded that they wanted the more expensive Zilog IrDA transceiver modules because the more expensive modules had the low-power sleep mode, whereas the older less expensive modules I proposed using did not have the low-power sleep mode.

10. Zilog, Inc., for each of the past five years, has sold approximately one million dollars worth of IrDA transceiver modules having the IrDA discovery signal detector circuit. I believe that a substantial proportion of Zilog's sales of IrDA transceivers having the IrDA discovery signal detector circuit are purchased at least in part due to the low-power sleep mode capability of those devices.

11. Throughout the past six years, I have endeavored to keep myself informed about all IrDA transceiver modules available on the market, and what their capabilities are. Current manufacturers of IrDA transceiver modules for the US market include Hewlett-Packard and Vishay (formerly Siliconix). It is one of my job responsibilities to keep myself aware of the technical capabilities of the IrDA transceiver module market.

12. I consider myself well informed and knowledgeable about the capabilities of IrDA transceiver modules that have been on the market throughout the past six years.

13. To my knowledge, no company other than Zilog, Inc. (and Calibre before it) currently produces (or has ever produced) an IrDA transceiver module having an IrDA discovery signal detection circuit, a low-power sleep mode and a

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higher-power normal operation mode, wherein the IrDA discovery signal detection circuit, upon detecting a 9600 baud IrDA discovery signal, switches transceiver operation from the low-power sleep mode to the higher-power normal operation mode.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above-identified application or any patent issued thereon.

Dated: May 26, 2004

Alan G. Grace
Fellow
Zilog, Inc.
532 Race Street
San Jose, CA 95126

I hereby certify that this is being deposited with the U.S. Postal Service as Express Mail "Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated below and is addressed to:

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By T. Lester Wallace

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